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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,471	09/05/2003	James Alfred Dunnam	DUQU-01	8690

30568 7590 10/29/2004

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EXAMINER

PARSLEY, DAVID J

ART UNIT	PAPER NUMBER
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3643

DATE MAILED: 10/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/656,471

Applicant(s)

DUNNAM ET AL.

Examiner

David J Parsley

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9-5-03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **Detailed Action**

### ***Oath/Declaration***

1. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:  
It is not signed or dated by one of the applicant's.

### ***Specification***

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the tracer platform having a ballistic coefficient substantially equivalent to a shot pellet's ballistic coefficient as seen in claims 5 and 17 is not supported in the specification.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claims 5-6 and 17-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 5 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear to what the term "ballistic coefficient" is referring to and what the term means in that it is not discussed in applicant's disclosure.

Claims 6 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear to what the other metals or other plastics are.

Claims 6 and 18 contain the trademark TEFLON which is used in the claims to describe a particular material or product and therefore the scope of the claim is uncertain since the trademark cannot be used properly to identify any particular material or product as seen in *Ex parte Simpson*, 218 USPQ 1020 (bd. App. 1982) and MPEP section 2173.05(u).

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 1-2, 4, 8, 13-14, 16 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 1,887,990 to Brownsdon et al.

Referring to claims 1 and 13, Brownsdon et al. discloses cylindrical tracer platform – at 6,7, for use with a hollow shotgun shell – at 1, having a lower end and an upper end – see figures 1-2, and also having a shot holder holding shot pellets – 8, located inside the upper end of the shotgun shell – at the upper portion of item – 1 or – at 4 or – at 10, a base – see at the lower end of the shell – 1, with a primer – see at the lower end of item – 1, for ignition located inside the lower end of the shotgun shell – see figures 1-2, and propellant – at 2, positioned proximate the primer – see figures 1-2, the tracer platform having a nose – see figures 1-2, a bottom and a coaxial cavity holding a tracer element – see for example figures 1-2, the bottom of the tracer platform having a generally concave cavity which acts as a gas seal upon ignition of the propellant – see for example figures 1-2.

Referring to claims 2 and 14, Brownsdon et al. discloses the tracer element comprises a cylindrical housing – at 6, containing pyrotechnic material susceptible to ignition upon burning of the propellant – at 2 – see for example page 1 lines 67-78.

Referring to claims 4 and 16, Brownsdon et al. discloses the tracer element is selected from the group consisting of electrical material, reflective material, chemiluminescent material and pyrotechnic material – see for example column 1 lines 67-78.

Referring to claims 8 and 20, Brownsdon et al. discloses the nose of the tracer platform – at 6, has a shape selected from flat, conical and spherical – see for example figures 1-2.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brownsdon et al. as applied to claims 2 or 13 above, and further in view of U.S. Patent No. 6,694,887 to Diller. Brownsdon et al. does not disclose the housing of the tracer element contains a fire-suppressing agent. Diller does disclose the housing of the tracer element – at 26, contains a fire-suppressing agent – see for example column 8 lines 25-32. Therefore it would have been obvious to one of ordinary skill in the art to take the device of Brownsdon et al. and add the housing containing a fire-suppressing agent of Diller, so as to allow for the tracer element to not be consumed during the burning of the propellant.

Claims 5 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brownsdon et al. as applied to claims 1 or 13 above, and further in view of U.S. Patent No. 3,262,390 to Cowles et al. Brownsdon et al. does not disclose the tracer platform has a ballistic coefficient substantially equivalent to a shot pellet's ballistic coefficient. Cowles et al. does disclose the tracer platform – at 11-12, has a ballistic coefficient substantially equivalent to a shot pellet's – at 15, ballistic platform – see for example column 3 lines 49-63. Therefore it would have been obvious to one of ordinary skill in the art to take the device of Brownsdon et al. and add the tracer platform and shot having the same ballistic coefficient of Cowles et al., so as

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to allow for the tracer platform to accurately follow the path of the shot pellets upon ignition of the propellant in the shell.

Claims 6 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brownsdon et al. as modified by Cowles et al. as applied to claims 5 or 17 above, and further in view of Diller. Brownsdon et al. as modified by Cowles et al. does not disclose the tracer platform is made from one or more materials selected from the group of aluminum, brass, lead, neoprene, nylon, polyethylene, polyurethane, rubber, steel, Teflon, titanium, other metals and other plastics. Diller does disclose the tracer platform – at 26, is made of plastics, metals and rubber – see for example column 8 lines 25-33. Therefore it would have been obvious to one of ordinary skill in the art to take the device of Brownsdon et al. as modified by Cowles et al. and add the tracer platform made of plastics, metals or rubber of Diller, so as to allow for the tracer platform to be durable.

Claims 7 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brownsdon et al. as applied to claims 1 or 13 above, and further in view of U.S. Patent No. 4,841,866 to Miesner. Brownsdon et al. does not disclose the tracer platform has a diameter in the range of 0.2 inches to 1.25 inches. Miesner does disclose the tracer platform – at 16, has a diameter in the range of 0.2 inches and 1.25 inches – see for example column 4 lines 31-40. Therefore it would have been obvious to one of ordinary skill in the art to take the device of Brownsdon et al. and add the tracer platform having a diameter in the range of 0.2 inches and 1.25 inches of Miesner, so as to allow for the tracer platform to ballistically match the shot pellets.



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Claims 9 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brownsdon et al. '990 as applied to claims 1 or 13 above, and further in view of U.S. Patent No. 1,887,989 to Brownsdon et al. Brownsdon et al. '990 does not disclose the tracer platform has formed therein symmetrical cavities for holding weights for the adjustment of the tracer platform's weight and flight characteristics. Brownsdon et al. '989 does disclose cavities – inside 1, for holding weight – at m. Brownsdon et al. '990 as modified by Brownsdon et al. '989 does not disclose multiple weights, however it would have been obvious to one of ordinary skill in the art to take the device of Brownsdon et al. '990 as modified by Brownsdon et al. '989 and add extra weights, so as to allow for the weight of the tracer platform to correspond to the weight of the shot pellet's.

Claims 9-12 and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brownsdon et al. as applied to claims 1 or 13 above, and further in view of Diller.

Referring to claims 9 and 21, Brownsdon et al. does not disclose the tracer platform has formed therein symmetrical cavities for holding weights for the adjustment of the tracer platform's weight and flight characteristics. Diller does disclose the tracer platform – at 26, has formed therein symmetrical cavities for holding weights – at 28 – see for example figures 7-13. Therefore it would have been obvious to one of ordinary skill in the art to take the device of Brownsdon et al. and add the cavities containing weights of Diller, so as to allow for the weight of the tracer platform to correspond to the weight of the shot pellet's.

Referring to claims 10 and 22, Brownsdon et al. does not disclose the tracer platform has an outer surface with grooves formed therein. Diller does disclose a tracer platform – at 26, with grooves – at 52 – see for example figure 8. Therefore it would have been obvious to one of



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ordinary skill in the art to take the device of Brownsdon et al. and add the tracer platform with grooves of Diller, so as to allow for the tracer platform to closely follow the path of the shot pellets.

Referring to claims 11 and 23, Brownsdon et al. does not disclose the tracer platform has an outer surface with symmetrically positioned fins attached thereto. Diller does disclose the tracer platform has an outer surface with symmetrically positioned fins – at 56 attached thereto – see for example figure 8. Therefore it would have been obvious to one of ordinary skill in the art to take the device of Brownsdon et al. and add the tracer platform with fins of Diller, so as to allow for the tracer platform to closely follow the path of the shot pellets.

Referring to claims 12 and 24, Brownsdon et al. does not disclose the tracer platform has an outer surface with orifices formed therein. Diller does disclose the tracer platform – at 26,56, has an outer surface with orifices formed therein – see for example figure 15. Therefore it would have been obvious to one of ordinary skill in the art to take the device of Brownsdon et al. and add the tracer platform with orifices of Diller, so as to allow for the tracer platform to closely follow the path of the shot pellets.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of the art with respect to shotgun shells with tracer elements in general:

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U.S. Pat. No. 1,457,337 to Barrows – shows shotgun shell with tracer element

U.S. Pat. No. 1,864,916 to Gachassin-Lafite – shows shotgun shell with tracer

U.S. Pat. No. 4,167,904 to Ferri – shows shotgun shell with tracer element

U.S. Pat. No. 6,428,007 to Skeuse et al. – shows PVC as fire suppressant

EP Pat. No. 0555107 – shows shotgun shell with tracer element

WO Pat. No. 94/23264 – shows shotgun shell with tracer element

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David J Parsley whose telephone number is (703) 306-0552. The examiner can normally be reached on 9hr compressed.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Poon can be reached on (703) 308-2574. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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Patent Examiner  
Art Unit 3643



PETER M. POON  
SUPERVISORY PATENT EXAMINER

10/27/14